Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

7 December 2017

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Item 6 of the provisional agenda
Issues of substance and process for the period before the next Review Conference, with a view to reaching consensus on an intersessional process

Report on BWC relevant developments by International Experts

Submitted by Malaysia and the United States of America

1. On November 30 and December 1, nearly 50 delegations gathered at a workshop co-hosted by the Governments of Malaysia and the United States of America to hear presentations about global activities during the past year that strengthen the Biological Weapons Convention (BWC). The purpose of this workshop was to inform States Parties about recent developments relating to national implementation, cooperation and assistance, preparedness and response, and science and technology, and to exchange ideas about their relevance to the Convention.

2. The workshop was opened by His Excellency Ambassador Amran Mohamed Zin of Malaysia and His Excellency Ambassador Robert A. Wood of the United States, and over two days, 22 experts from around the world gave presentations and engaged in robust discussion with delegates.

Science and Technology

3. The session on science and technology was moderated by Mr. Laurent Masmejean (Delegation of Switzerland) and included presentations by Dr. Robin Fears, Dr. Yin Li, and Dr. Kazumoto Koyama.

- Dr. Fears (European Academies Science Advisory Council) presented outcomes from an international workshop on the potential security implications of genome editing technology hosted by the Volkswagen Foundation in October 2017. The consensus among participants of the workshop was that newer genome editing technologies introduce limited additional security risks relative to risks posed by older technologies. However, given increased accessibility of enabling technologies like DNA synthesis and sequencing, participants also agreed that ongoing, open and inclusive dialogue with the security community, policy makers and the public an essential task for the scientific community.
- Dr. Li (Chinese Academy of Sciences) presented findings from a joint study by Chinese Academy of Sciences (CAS) and The World Academy of Sciences (TWAS) on a quantitative analysis of research and development activities carried out by developing nations in the biotechnology field. The joint study presented

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that over the last ten years, scientific publications from developing nations have increased by 117%, and the number of patents issued has increased by 7%. Dr. Li concluded with a discussion of China's code of conduct proposal and the need for timely evaluation of risks of life sciences research to consciously avoid and properly address dual-use research.

- Dr. Kauznobu Kojima (World Health Organization) discussed the effort by the World Health Organization to revise the *Laboratory Biosafety Manual* (LBM), last updated in 2004. The revised LBM, to be released in 2018, will emphasize risk assessment and training, rather than engineering controls, because the best-designed laboratory is only as safe as its least-trained worker. WHO has also determined that risk groups and biosafety levels are not necessarily equivalent for a given pathogen. Therefore, the LBM will focus not only on risks posed by specific pathogens, but also the differing risks posed by laboratory procedures like those using sharp instruments (higher risk of exposure) and diagnostic tests (lower risk).

National Implementation

4 Mr. Zahid Rastam (Delegation of Malaysia) moderated the session on national implementation. The session included two panels. The first panel featured the Honorable Minister Lemalu Lemi Taefu, Mr. Peter Barcroft, Ms. Kathrina Yambao, Mr. Shawn Kirk, and Dr. Djibril Sangare. The second panel featured Mr. Abdellah Boutadghart, Dr. Marisol O'Ryan, Ms. Julia Nordmann, and Mr. William Kofi Baffoe-Mensah.

- Minister Taefu (Parliament of Samoa) described Samoa's process of accession and implementation of the BWC, and shared insights on how to help other small Pacific Island nations accede to the treaty. Upon becoming a member of Parliamentarians for Global Action (PGA), Minister Taefu was asked to work on accession of the BWC. He described the challenges related to the technical sophistication of the treaty and the ability of a country to assess its own level of compliance. Minister Taefu advised that Pacific Island nations are willing to accede to the BWC, but they need assistance with completing the process. Samoa became the 179th State Party to the BWC on 21 September 2017.

- Mr. Barcroft (PGA) described his organization's recent work to promote universalization of the BWC, including successes in assisting Nepal, Angola, Côte d'Ivoire, Liberia, Guinea, and Samoa to become States Parties. Mr. Barcroft also noted that some of the positive developments toward BWC accession have occurred through workshops on UNSCR 1540 and other efforts. PGA-hosted workshops have directly translated into action, with 90% of participants taking specific steps toward BWC implementation.

- Kathrina Yambao (Public Health Agency of Canada) provided a presentation on Canada's Biosafety and Biosecurity Analytical Approach (AA). This is a tool developed to assist States Parties in modernizing, developing and implementing policy frameworks posed by pathogens and toxins. The AA tool has been used in pilot exercises in Trinidad and Tobago and Mali this past year. Lessons learned to date include the importance of a common vocabulary, the need to connect responsible officials across agencies, and the need for flexibility. Canada plans to finalize the AA tool in 2018 and provide it to the WHO.

- Mr. Shawn Kirk (Ministry of Health, Trinidad and Tobago) presented his country's experience with the AA pilot exercise. Appointed as the national focal point for biosafety and biosecurity in 2016, Mr. Kirk conducted a survey of 100 laboratories and identified many gaps in knowledge about legislation governing laboratory operations. The pilot exercise developed a series of recommendations, including establishment of a cabinet-approved national biosafety/biosecurity steering committee and of a national policy for the licensure of laboratory facilities; the latter has become a national priority.

- Dr. Djibril Sangare (Biosecurity and Biosafety Association of Mali, MABB) described Mali's experience with the AA pilot exercise. MABB was created by law in 2011 and has conducted risk assessments for some laboratories and developed training curricula but sought to create a national biosecurity framework. The pilot exercise resulted in development of terms of reference, collection of all existing guidelines related to biosecurity and biosafety, and formulation of 22 recommendations for national action.
- Mr. Abdellah Boutadghart (Delegation of Morocco) described Morocco's recent peer review exercise. The objectives of the exercise were to present Morocco's pathogen control efforts, to host international experts on laboratory visits, and to develop the recommendations necessary to enhance national implementation of the BWC in terms of pathogen controls.
- Dr. Marisol O'Ryan (BWC National Authority, Chile) reviewed Chile's experiences with voluntary visits and implementation initiatives with Spain, Colombia, and others. Voluntary visits can be used to strengthen transparency and compliance, improve collaboration for responding to alleged use, improve education in the BWC framework, and promote cooperation and assistance under Article X. Chile's recent exercise with Colombia led to development of a laboratory survey and to improved processes for collecting information from agencies – which also facilitates the CBM process.
- Ms. Julia Nordmann (German Federal Foreign Office) reviewed a peer review visit to the Bundeswehr Institute of Microbiology in 2016. The visit's objective was to increase transparency, share best practices, discuss implementation, raise awareness, establish contacts, and improve international cooperation. Participants in the visit found the laboratory to be consistent with th information provided in Germany's CBM, and the equipment and infrastructure to be consistent with research for peaceful uses.
- Mr. William Kofi Baffoe-Mensah (National Security Council Secretariat, Ghana) presented a recent BWC legislative workshop in Accra that evolved from Ghana's peer review exercise, which identified a need for new legislation. A draft "Biological and Toxin Weapons Bill" was developed at the workshop. In addition, Ghana adopted control lists of biological agents, and considered provisions to empower laboratory inspectors. Ghana plans to hold stakeholder consultations in early 2018, to refine the bill, and present it to Parliament in summer 2018.

Preparedness and Response

5. Mr. Vladimir Ladanov (Delegation of Russia) moderated the session on preparedness and response, which featured presentations by Dr. Maurizio Barbeschi, Ms. Valeria Santori, Dr. Mark Smith, Dr. Frederik Kristensen, and Senior Assistant Commissioner Hussein Bin Omar Khan.

- Dr. Maruizio Barbeschi (WHO) presented on the health-security interface. The International Health Regulations obligate nations to be able to identify biological events, regardless of origin. But deliberately-caused epidemics would fundamentally transform the context in which public health services must be delivered, affecting the speed, quality, and reliability of the response and introducing additional factors like psychological effects, and increased attention from media and publics.
- Ms. Valeria Santori (Consultant to the ISU) presented the BWC ISU Article VII project funded by the Government of Canada. The project aims to strengthen international mechanisms and capabilities for responding to the deliberate use of disease, and will produce several products: a comprehensive report on the main actors within international organizations who would be involved in response, investigation and assistance delivery and coordination scenarios, identified roles

and responsibilities of primary stakeholders; and a draft bio-emergency management plan for deliberate events.

- Dr. Mark Smith (Wilton Park) presented the outcome of the workshop on Responding to Deliberate Biological Release held in September 2017. Key challenges identified at the workshop included: the complexities introduced by variability among pathogens; lack of a lead authority among international organizations; poor definition of stakeholder roles and responsibilities; and the practical lack of capacity to effectively coordinate a response within the BWC. Workshop participants recommended creation of a roster of experts or task force to handle coordination efforts, to include planning and exercises.

- Dr. Frederik Kristensen (Coalition for Epidemic Preparedness Innovations, CEPI) described the CEPI program, a global partnership to support the development of new medical countermeasures. CEPI has partners from public, private, philanthropic, and civil society organizations in order to accelerate vaccine development and coordinate activities related to regulatory challenges associated with vaccines. CEPI focuses is on priority pathogens not addressed by market forces, beginning with MERS, Lassa Fever, and Nipah. CEPI is also engaged in coordinating activities, with task forces on stockpiling and procurement, biological standards, assays, and animal models.

- Senior Assistant Commissioner Hussein Bin Omar Khan (Royal Malaysia Police) presented a series of workshops on national capacity building to respond to and investigate the deliberate release of pathogens. The two responsible agencies are the National Security Council and the National Disaster Management Agency; other relevant agencies include the Ministry of Health, Department of Veterinary Services, and the Science & Technology Research Institute for Defence (STRIDE). Moving forward, these agencies are working to remove barriers to information sharing, drafting national standard operating procedures, and scheduling exercises and training, especially at the local level.

International Cooperation and Assistance

6. Mr. Hellmut Koller (Delegation of Chile) moderated the session on international cooperation and response, which featured Mr. Jos Verbeek, Dr. Zalini Yunus, Mr. Francesco Marelli, Minister Renne Klinge, and Mr. Guillaume Grosso.

- In lieu of Dr. Mukesh Chawla, Mr. Jos Verbeek (World Bank) presented the World Bank's initiatives to strengthen national responses to major disease outbreaks. Using $75 million from the International Development Association, World Bank has committed to assisting at least 25 developing countries to produce pandemic preparedness plans. The bank has also launched a number of new initiatives to support work in preparedness, including collaborations with Japan and Australia the Rockefeller Foundation, and others. Finally, World Bank has developed the Pandemic Emergency Financing Facility, which is designed to expedite emergency funding to nations in the event of an emerging public health crisis.

- Dr. Zalini Yunus (Ministry of Defence, Malaysia) presented national efforts to implement biorisk management programs. To implement these programs, Malaysia is working to develop a mentorship training program to raise awareness and to begin biorisk management plans. The Malaysian Biorisk Officers Trainings (MABOT) has conducted trainings at universities to ensure participants have sufficient knowledge of biosafety and biosecurity. To date, the MABOT has engaged 98 participants at 14 universities.

- Mr. Francesco Marelli (UNICRI) presented efforts to assist countries in devising national action plans to mitigate CBRN risks, in partnership with the European Union Centers of Excellence. UNICRI works with countries to create national CBRN Action Plans that identify risks and gaps in capabilities, as well as to

improve international coordination and harmonization of existing instruments. To date, 24 countries have begun implementation of their National Action Plans.

- Minister Renne Klinge (Delegation of Finland) discussed the Finnish health security system as well as Finland's international efforts to build global health security capacity, particularly via the JEE Alliance. The Finnish system's success is made possible by a cooperative, multidisciplinary approach that fosters systems-based thinking across sectors. To date, more than 60 countries have undergone joint external evaluations (JEE). The JEE Alliance, co-chaired by Finland, has 65 members and is focused on development of national action plans and promotes transparency via publication of JEE reports.

- Mr. Guillaume Grosso (GAVI, the Vaccine Alliance) presented GAVI's work to increase equitable access to vaccines, particularly for children. GAVI works to deliver the set of 11 WHO-recommended childhood vaccines and has active projects related to vaccine stockpiling and to development of a malaria vaccine. GAVI has successfully secured dramatically reduced vaccine prices by bulk purchase and has secured a diverse vaccine supply network. Countries have successfully used bond financing provided via GAVI to fund large vaccination campaigns. Since its creation in 2000, GAVI has vaccinated 640 million children, averting an estimated nine million deaths.